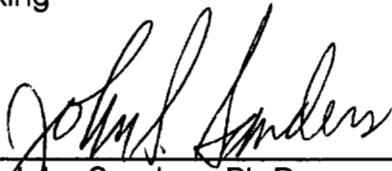


STANDARD OPERATING PROCEDURE
Creating and Filling out a Chain of Custody Record

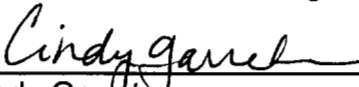
KEY WORDS

COC, Sample Tracking

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Environmental Monitoring Branch organization and personnel, such as management, senior scientist, quality assurance officer, project leader, etc., are defined and discussed in SOP ADMN002.

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1.0 INTRODUCTION

1.1 Purpose

A chain of custody record (COC) is an appropriate format to record important data associated with each individual sample. Normally, a COC is used to record three types of information: field information, laboratory information, and the people who handle the sample.

1.2 Definitions

- 1.2.1 **Chain of Custody (COC)** is a legal document designed to track persons who are responsible for the preparation of the sample container, sample collection, sample delivery, sample storage, and sample analysis.
- 1.2.2 A **sample number** is a unique number given to a sample, usually attached to the sample container with label tape (SOP QAQC005.00).

2.0 PROCEDURES

2.1 Creating the COC

A COC is created for each study. A COC has three sections: field information, lab information, and the signatures of the people who handle the sample. The form is generally a three-page carbon copy document, including a white, yellow and pink sheet.

- 2.1.1 **Field Information** - The COC must contain places to enter the following field information: study number, sample number, sampling date, and type of sample. Other field information may be recorded as specified in the study protocol. It is imperative that there be only one sample with a particular sample number per study number so as to prevent duplicates in EM Branch databases.

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2.1.2 Laboratory Information - The COC must contain places to enter the following laboratory information: reporting limit of each analyte, the result of analysis, method number of the analytical method, space for the analytical laboratory address, date of extraction, date of analysis, and the signature of the person performing extraction and analysis. The statement "Results relate only to the sample tested" must be printed on the COC. Other laboratory information may be recorded as specified in the study protocol.

2.1.3 Signatures - The COC must contain places for all people who handle the sample to sign his/her name. This is a record of persons who had custody of the sample during all steps of the process from container preparation, sample collection, sample storage and transport, and sample analysis. There should be signature lines to relinquish custody of the sample and to receive custody of the sample. A signature sample must be kept on file by the laboratory Liaison.

2.2 Filling out the chain of custody

The person who prepared the sample container signs the first "relinquished by" line. The "received by" line is signed and dated by the person collecting the sample. That same person then signs to relinquish the sample when it is delivered to the sample storage facility. The person who transports the sample to the laboratory signs the COC last. In case there are additional steps in the process requiring another person or persons to take custody of the sample, the form has additional lines for signatures. All signatures must be in ballpoint pen and are followed by a date and time that the COC was signed. The line at the bottom of the page is provided for personnel from the laboratory to sign for receiving the sample.

No erroneous information may be erased on the COC. Errors must be lined out and initialed, and the correction written in. See SOP ADMN005.00 for details regarding storage of data.

2.2.1 Container Preparation - The COC is initiated at the time the containers are prepared (SOP QAQC005.00). The COC at that time includes the study number, the sample number (which should

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correspond with a unique number on a sample container), chemicals to be analyzed if known, and the signature of the person preparing the sample container and date prepared.

- 2.2.2 **Sample Collection** - The personnel who receive the sample containers, transport them to the field, collect the samples, and place them in the sample containers will sign their name on the COC under the first received by column and write the date and time the sample container was received on the line next to it. They also fill in the information required on the COC and sign the relinquished by line. If a team is involved in the sample collection, only one team member is required to sign the COC.
- 2.2.3 **Sample Storage** - When the samples are relinquished to the lab liaison or liaison's representative, that person will sign the COC on the next "received by" line, and will write the date and time. The pink copy of the COC is detached from the other two copies. Pink COC sheets are retained at the sample storage facility until they are entered into the sample-tracking database (SOP QAQC 003), at which point they should be given to the project leader.
- 2.2.4 **Sample Delivery** – Once the sample is delivered to the lab, the laboratory personnel will sign and date the "received by" line located at the bottom of the COC.
- 2.2.5 **Laboratory Analysis** - The analyzing laboratory will record the reporting limit of each analyte, the result of analysis, method number, date of extraction, date of analysis, and the signature of the person performing extraction and analysis. When the analysis is completed and approved by the laboratory, white COC sheets will be given to the lab liaison. The laboratory retains the yellow copy.

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- 2.2.6 **Data Review and COC Delivery** - The appropriate information is entered into the sample-tracking database (SOP QAQC003.01). The lab liaison and/or quality assurance officer will review the analytical data. The white COC is then forwarded to the project leader.